

5 IN THE CLAIMS:

Please amend the claims as indicated below:

1. (Currently Amended) A method for encoding a signal, comprising the steps of:
 filtering said signal using an adaptive filter controlled by a psychoacoustic model, said
 10 adaptive filter producing a filter output signal and having a magnitude response that approximates an
 inverse of the ~~masked~~ masking threshold; and
 quantizing and encoding the filter output signal together with side information for filter
 adaptation control, wherein the spectral and temporal resolutions of one or more subbands utilized in
said encoding are selected independent of said adaptive filter.
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2. (Original) The method of claim 1, wherein said quantizing and encoding step uses a
 transform or analysis filter bank suitable for redundancy reduction.
3. (Original) The method of claim 1, further comprising the steps of quantizing and
 20 encoding spectral components obtained from a transform or analysis filter bank, and wherein said
 quantizing and encoding steps employ fixed quantizer step sizes.
4. (Previously Presented) The method of claim 1, wherein said quantizing and encoding
 step reduces the mean square error in said signal.
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5. (Previously Presented) The method of claim 1, wherein a filter order and intervals of
 filter adaptation of said adaptive filter are selected suitable for irrelevancy reduction.
6. (Original) The method of claim 1, wherein said signal is an audio signal.
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7. (Original) The method of claim 1, wherein said signal is an image signal and said
 adaptive filter is controlled in a way that said magnitude response approximates an inverse of a visibility
 threshold.

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- 5 8. (Original) The method of claim 1, further comprising the step of transmitting said encoded signal to a decoder.
9. (Original) The method of claim 1, further comprising the step of recording said encoded signal on a storage medium.
- 10 (Original) The method of claim 1, wherein said encoding further comprises the step of employing an adaptive Huffman coding technique.
11. (Original) The method of claim 1, wherein said filtering step is based on a frequency-
15 warping technique using a non-linear frequency scale.
12. (Previously Presented) The method of claim 1, wherein the encoding stage for filter coefficients comprises a conversion from linear-predictive coefficient filter coefficients to lattice coefficients or to Line Spectrum Pairs.
- 20 (Currently Amended) A method for encoding a signal, comprising the steps of:
 filtering said signal using an adaptive filter controlled by a psychoacoustic model, said adaptive filter producing a filter output signal and having a magnitude response that approximates an inverse of the ~~masked~~ masking threshold; and
25 transforming the filter output signal using a plurality of subbands suitable for redundancy reduction; and
 quantizing and encoding the subband signals together with side information for filter adaptation control, wherein the spectral and temporal resolutions of one or more subbands utilized in said encoding are selected independent of said adaptive filter.
- 30 (Original) The method of claim 13, wherein said quantizing and encoding step uses a transform or analysis filter bank suitable for redundancy reduction.

- 5 15. (Original) The method of claim 13, further comprising the steps of quantizing and encoding spectral components obtained from a transform or analysis filter bank, and wherein said quantizing and encoding steps employ fixed quantizer step sizes.
16. (Previously Presented) The method of claim 13, wherein said quantizing and encoding
10 step reduces the mean square error in said signal.
17. (Previously Presented) The method of claim 13, wherein a filter order and intervals of filter adaptation of said adaptive filter are selected suitable for irrelevancy reduction.
- 15 18. (Original) The method of claim 13, wherein said filtering step is based on a frequency-warping technique using a non-linear frequency scale.
19. (Previously Presented) The method of claim 13, wherein the encoding stage for filter coefficients comprises a conversion from linear-predictive coefficient filter coefficients to lattice
20 coefficients or to Line Spectrum Pairs.
20. (Currently Amended) A method for decoding a signal, comprising the steps of:
decoding and dequantizing said signal;
decoding side information for filter adaptation control transmitted with said signal; and
25 filtering the dequantized signal with an adaptive filter controlled by said decoded side information, said adaptive filter producing a filter output signal and having a magnitude response that approximates the ~~masked~~ masking threshold, wherein the spectral and temporal resolutions of one or more subbands utilized in said decoding are selected independent of said adaptive filter.
- 30 21. (Original) The method of claim 20, wherein said decoding and dequantizing step uses an inverse transform or synthesis filter bank suitable for redundancy reduction.
22. (Original) The method of claim 20, further comprising the steps of decoding and dequantizing spectral components obtained from a transform or synthesis filter bank, and wherein said

5 decoding and dequantizing steps employ fixed quantizer step sizes.

23. (Previously Presented) The method of claim 20, wherein a filter order and intervals of filter adaptation of said adaptive filter are selected suitable for irrelevancy reduction.

10 24. (Previously Presented) The method of claim 20, wherein the decoding stage for filter coefficients comprises a conversion from lattice coefficients or to Line Spectrum Pairs to linear-predictive_coefficient filter coefficients.

25. (Currently Amended) A method for decoding a signal transmitted using a plurality of
15 subband signals, comprising the steps of:

decoding and dequantizing said transmitted subband signals;

decoding side information for filter adaptation control transmitted with said signal;

transforming said subbands to a filter input signal; and

20 filtering the filter input signal with an adaptive filter controlled by said decoded side information, said adaptive filter producing a filter output signal and having a magnitude response that approximates the ~~masked~~ masking threshold, wherein the spectral and temporal resolutions of one or more subbands utilized in said decoding are selected independent of said adaptive filter.

26. (Original) The method of claim 25, wherein said decoding and dequantizing step uses an
25 inverse transform or synthesis filter bank suitable for redundancy reduction.

27. (Original) The method of claim 25, further comprising the steps of decoding and dequantizing spectral components obtained from a transform or synthesis filter bank, and wherein said decoding and dequantizing steps employ fixed quantizer step sizes.

30 28. (Previously Presented) The method of claim 25, wherein a filter order and intervals of filter adaptation of said adaptive filter are selected suitable for irrelevancy reduction.

- 5 29. (Previously Presented) The method of claim 25, wherein the decoding stage for filter coefficients comprises a conversion from lattice coefficients or to Line Spectrum Pairs to linear-predictive coefficient filter coefficients.
30. (Currently Amended) An encoder for encoding a signal, comprising:
10 an adaptive filter controlled by a psychoacoustic model, said adaptive filter producing a filter output signal and having a magnitude response that approximates an inverse of the ~~masked~~ masking threshold; and
a quantizer/encoder for quantizing and encoding the filter output signal together with side information for filter adaptation control, wherein the spectral and temporal resolutions of one or
15 more subbands utilized in said encoder are selected independent of said adaptive filter.
31. (Currently Amended) An encoder for encoding a signal, comprising:
an adaptive filter controlled by a psychoacoustic model, said adaptive filter producing a filter output signal and having a magnitude response that approximates an inverse of the ~~masked~~
20 masking threshold; and
a plurality of subbands suitable for redundancy reduction for transforming the filter output signal; and
a quantizer/encoder for quantizing and encoding the subband signals together with side information for filter adaptation control, wherein the spectral and temporal resolutions of one or more
25 subbands utilized in said encoder are selected independent of said adaptive filter.
32. (Currently Amended) A decoder for decoding a signal, comprising:
a decoder/dequantizer for decoding and dequantizing said signal and decoding side information for filter adaptation control transmitted with said signal; and
30 an adaptive filter controlled by said decoded side information, said adaptive filter producing a filter output signal and having a magnitude response that approximates the ~~masked~~ masking threshold, wherein the spectral and temporal resolutions of one or more subbands utilized in said decoder are selected independent of said adaptive filter.

- 5 33. (Currently Amended) A decoder for decoding a signal transmitted using a plurality of
subband signals, comprising:
- a decoder/dequantizer for decoding and dequantizing said transmitted subband signals
and decoding side information for filter adaptation control transmitted with said signal;
- means for transforming said subbands to a filter input signal; and
- 10 an adaptive filter controlled by said decoded side information, said adaptive filter
producing a filter output signal and having a magnitude response that approximates the ~~masked~~ masking
threshold, wherein the spectral and temporal resolutions of one or more subbands utilized in said
decoder are selected independent of said adaptive filter.

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